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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,180	12/28/2001	Perry E. Phelan	10541/798	9413

29074 7590 09/24/2003

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EXAMINER

LE, DAVID D

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 09/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,180

Applicant(s)

PHELAN ET AL.

Examiner

David D. Le

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-14 and 16-28 is/are pending in the application.
- 4a) Of the above claim(s) 4, 5, 21, 22 and 26-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-14, 16-20 and 23-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This is the second Office action on the merits of Application No. 10/034,180, filed 28 December 2001. Claims 1-5, 7-14, and 16-28 are pending. Claims 4-5, 21-22, and 26-28 are withdrawn as being drawn to a non-elected Species.

Documents

1. The following documents have been received and filed as part of the patent application:
 - Declaration and Power of Attorney, received on 02/28/02
 - Supplemental Information Disclosure Statement, received on 02/03/03
 - Newly submitted Declaration and Power of Attorney, received on 06/30/03
 - Amendment, received on 06/30/03
 - Corrected Drawings, received on 06/30/03

Election/Restrictions

2. Applicant's election with traverse of Species B in Paper No. 5 is acknowledged. The traversal is on the ground(s) that "the electric and pneumatic species of the invention may be efficiently searched along with the elected claims". This is not found persuasive because the election requirement is based on patentably distinct structures of the various species of the invention. Since applicant fails to submit evidence showing the species to be obvious variants, the requirement is still deemed proper and is therefore made FINAL.

Drawings

3. The drawings were received on 30 June 2003. These drawings are approved.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the amount of work from the second transfer assembly and output shaft to be equal to or greater than the amount of work from the first transfer assembly, does not reasonably provide enablement for the amount of work from the second transfer assembly and output shaft to be less than the amount of work from the first transfer assembly. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with this claim.

According to the present specification (i.e. page 6, lines 4-22), it would be true if claim 2 recited as wherein the amount of work from the second transfer assembly is less than or equal to the amount of work from the first transfer assembly.

It appears that the applicant does not consider the work that comes from the differential as part of the amount of work from the second transfer assembly and output shaft.

For the purpose of examining the claim over prior art, the Examiner interprets the recitation of claim 2, in light of the present specification (page 6, lines 4-22) as follows:

The torque controller of Claim 1, wherein the amount of work from the second transfer assembly and output shaft is ***greater*** than or equal to the amount of work from the first transfer assembly.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. 4,776,235 to Gleasman et al.**

Claims 9-13:

Gleasman (Fig. 1, column 2, line 50 – column 5, line 61) discloses a no-slip, imposed differential comprising:

- A differential (14);
- A first and a second output shaft (16 and 17), each output shaft having an interface (gear 26 or 27) to a transfer assembly (gear 32 or 33);
- A torque difference source (20) connected to each transfer assembly;
- Wherein the first output shaft and transfer assembly receive work from the differential, and the second transfer assembly and output shaft receive work from the torque difference source, (i.e. column 4, line 15 – column 5, line 6);
- Wherein the amount of work from the second transfer assembly and output shaft is greater than or equal to the amount of work from the first transfer assembly, (i.e. column 4, line 15 – column 5, line 6);

- Wherein the torque difference source is driven by a hydraulic system, which inherently comprises a pump, (i.e. column 3, lines 40-48); and
- It is inherent that Gleasman not-slip imposed differential has the ability to recognize a difference in shaft output power application and to determine whether a correction in output power is needed.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1-3, 7-8, 14, 16-20, and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gleasman et al. in view of U. S. Patent No. 6,520,880 to Fukushima et al.**

Claims 1-3, 7-8, 14, 16-20, and 23-25:

Gleasman (Fig. 1, column 2, line 50 – column 5, line 61) discloses a no-slip, imposed differential comprising:

- A differential (14);

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- A first and a second output shaft (16 and 17), each output shaft having an interface (gear 26 or 27) to a transfer assembly (gear 32 or 33);
- A torque difference source (20) connected to each transfer assembly;
- Wherein the first output shaft and transfer assembly receive work from the differential, and the second transfer assembly and output shaft receive work from the torque difference source, (i.e. column 4, line 15 – column 5, line 6);
- Wherein the amount of work from the second transfer assembly and output shaft is greater than or equal to the amount of work from the first transfer assembly, (i.e. column 4, line 15 – column 5, line 6);
- Wherein the torque difference source is driven by a hydraulic system, which inherently comprises a pump, (i.e. column 3, lines 40-48); and
- It is inherent that Gleasman not-slip imposed differential has the ability to recognize a difference in shaft output power application and to determine whether a correction in output power is needed.

Gleasman lacks:

- A controller;
- A means for controlling and monitoring power;
- A means for measuring power in the first and second shafts;
- An inner rotor;
- An outer rotor.

Fukushima (i.e. Figs. 1-2; column 1, line 58 – column 6, line 5), on the other hand, discloses a traction distribution device comprising:

- A controller (16) for controlling and monitoring power;
- A means for measuring power in the first and second shafts, (i.e. column 5, lines 50-53);
- A hydraulic pump (30);
- A motor (20);
- An inner rotor (22); and
- An outer rotor (23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gleasman to include a motor having an inner and an outer rotors, which is powered by a hydraulic pump, and a controller for controlling and monitoring the power, based on the input of various sensors, in view of Fukushima, in order to effectively and controllably optimize the traction of a motor vehicle.

Response to Arguments

10. Applicant's arguments filed on 30 June 2003 have been fully considered but they are not persuasive.

Claim 2:

The present specification (i.e. page 6, lines 4-22) is believed to provide enablement for the amount of work from the second transfer assembly to be less than or equal to the amount of work from the first transfer assembly.

Claim 9:

Applicant argues that Gleasman does not disclose a system with senses shaft output power and the capability of determining on its own whether a correction in output power is needed. Examiner respectfully disagrees because Gleasman, although not explicitly disclosed, is inherently having those mentioned limitations.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 703-305-3690. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

ddl
ddl

Charles A Marmor 9/22/03
CHARLES A MARMOR
SUPERVISORY PATENT EXAMINER
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